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APPROVED	O.G. FIG.
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Fig.1A

600E90 "OEGTEEGO

APPROVED BY DRAFTSMAN	O.G. FIG.
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K I V L K K W Y T I F K D H V S L G D Y
 50
 60

AAGATCGTTCTAAAGTGGTACACGATTAAAGGACCATGTATCTGGGAGATTAT
 TTCTAGCAAGAATTTCACCATGTGCTAAAAATTCTGGTACATAGAGACCCCTTAATA
 70

E I H D G M N L E L Y Y Q STOP

GAAATCCACGATGGATGAACCTGGAGCTTTATTACCAGTAGAGGGAAATTCCCTCCAC
 CTTTAGGGTGCCTACCTTGACCTCGAAATAATGGTCATCTCCCCTAAGGAGGTGG

TTGCCAACCTTGCTTCTCCATGGCTCATTTAACACTGTTGATGCTCATT
 AACGGGTTGGAACGAAAGGAGGGTACCGAGTAAATTGTGACAACAT'ACGAGTAAAAA
 AACAAATTCACATGAATAAAACTTTGATGCTGCAAAAAAAA 3'
 TTGTTAAGTGTACT 5'

Fig. 1A (i)

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FIGURE 10 "DETEILED"

50
K I V L K W Y T I F K D H V S L G D Y

AAGATCGTTCTTAAAG'GGTACACGATTAAAGGACCATGTATCTGGAGATTAT
TTCTAGCAAGAATTTCACCATGTCGCTAAAAATTCTGGTACATAGAGACCCCTTAATA

70

E I H D G M N L E L Y Y Q STOP

GAATCCACCGATGGATGAACCTGGAGCTTATTACAGTAGGGGAATTCCCTCCAC
CTTAGGGCTACCCCTACTTGGACCTCGAAATAATGGTCATCTCCCCTTAAGGAGGTGG

TTGCCAACCTTGCTTTCTCTCCATGGCTCATTAAACACTGTTAGATGCTCATT
AACGGGTTGGAACGAAAGGAGAGGGTACCGGAGTAATTGTGACAACATCTACGAGTAAAAA

AACAAATTCACTGAATAAAACTTTGATGCTGCAAAAAAAA 3'
TTGTTAAGTGTACT 5'

Fig. 1A (ii)

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FIGURE ONE "DRAFTED"

ATG ATC GAG GTT GTT TGC AAC GAC CGT CTT GGG AAA AAG GTC CNC 45
Met Ile Glu Val Val Cys Asn Asp Arg Leu Gly Lys Lys Val Xaa

1 5 10 15

GTT AAA TGC AAC ACG GAT GAT ACC ATC GGG GAC CTT AAG AAG CTG 90
Val Lys Cys Asn Thr Asp Asp Thr Ile Gly Asp Leu Lys Lys Leu
20 25 30

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ATT GCA GCC TAA
Ile Ala Ala *

Fig. 1B

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Fig.2A

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APPROVED BY	O.G. FIG.	
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660E50 "DEETEE60"

AMINO	ACID	ALIGNMENTS	A.	10	20	30	40	50
Beacon		MIEVVCNDRLGKKVRVKCNTDDTIGDLKKLIAAQQTGTRWNKIVLKKWYTI	*	*	*	*	*	*
Human		MIEVVCNDRLGKKVRVKCNTDDTIGDLKKLIAAQQTGTRWNKIVLKKWYTI						
Mouse		MIEVVCNDRLGKKVRVKCNTDDTIGDLKKLIAAQQTGTRWNKIVLKKWYTI						
C.elegans		MIEITVNDRLGKKVRIKCNPSDTIGDLKKLIAAQQTGTRWEKIVLKKWYTI						
F.hepatica		DRLGKKVRVKCNPIDKVGDLKKLIAAQQTGTAPERIVLKKWYTI						
Rice		MIEVVCNDRLGKKVRVKCNTDDTIGDLKKLIAAQQTGTRWNKIVLKKWYTI						
S.cerev		MIEVVCNDRLGKKVRVKCNTDDTIGDLKKLIAAQQTGTRWNKIVLKKWYTI						

Fig.2A (i)

APPROVED	O.G. FIG.	
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660E90 " DE6TEEE60

60

70
*

Beacon FKDHVSLGDYEIHGMNILEYYQ

Human FKDHVSLGDYEIHGMNILEYYQ

Mouse FKDHVSLGDYEIHGMNILEYYQ

C. elegans YKDHTLMDYEIHGFNFELYQ

F. hepatica YKDHTLADYEINDGMNILEYYQ

Rice YKDHTLADYEIHGMGLELYYN

S. cerev LKDHICLEDYEVHDQTNILEYYL

Percentage homologies

Human $73/73 = 100\%$

Mouse $73/73 = 100\%$

C. elegans $59/73 = 81\%$

F. hepatica $54/66 = 82\%$

Rice $58/73 = 79\%$

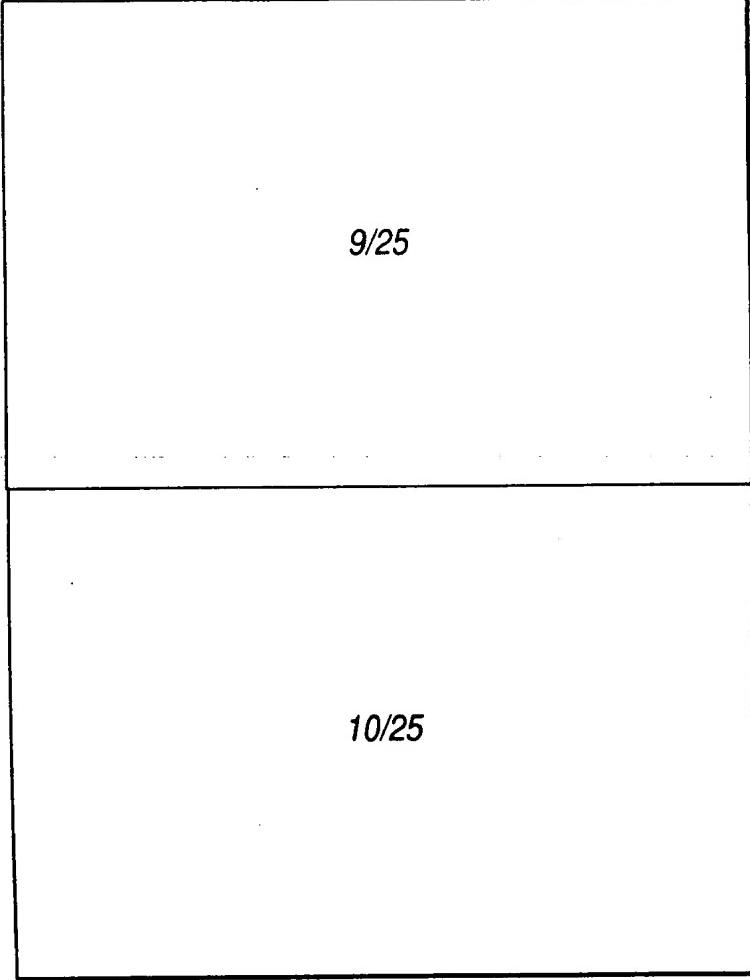
S. cerev $46/73 = 63\%$

Fig.2A (ii)

APPROVED	O.G. FIG.
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Fig.2B

6600690 " 08672260

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B. Human ubiquitin

10 20 30 40 50

* * * *

MIEVVCNDRLLGKKVRVRCKNTBDTIGBLRKLIAAQLTGIRWNKVERKWWII

— + + — + + — + + — + + —

ugiquitin MQIFVKT LTGKTTITLEVEPSD^TIENVAKIQQDKEGIPPDQQQLLIFAGRQ

60 70

+
+

ERDVISITGDPYEHGMNLELY8

—
—
—
+
—
—
+
—
+

mitigantin LEDGRTLSNDYNIQESTLHLVLRGG

Amino acid homology $18/73 = 25\%$

Positives (similar amino acids) $29/73 = 40\%$

Fig.2B (i)

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Ubiquitin-like protein 8 (A. thaliana)

	10	20	30	40	50
*	*	*	*	*	*

MIEVVCNDRLGKKVRVKCNTDDTIGDLKKLIAAQTGTRWNKIVLKWKYTI

| | + ++ + | | | + + | + | + | + + + | + + + | +

GKTIILEVESSSDTTIANVIKEKIQVKEGIKPDQQMLIFFFGQQ

A. thaliana

	60	70
*	*	*

FKDHVSLGDYEIHGMNLEYYQ

+ | | + | | | + | | |

A. thaliana LEDGVTLGDXDIHKKSTLYL

Amino acid homology 19/60 = 32%

Positives (similar amino acids) 34/60 = 57%

Fig.2B (ii)

APPROVED	O.G. FIG.
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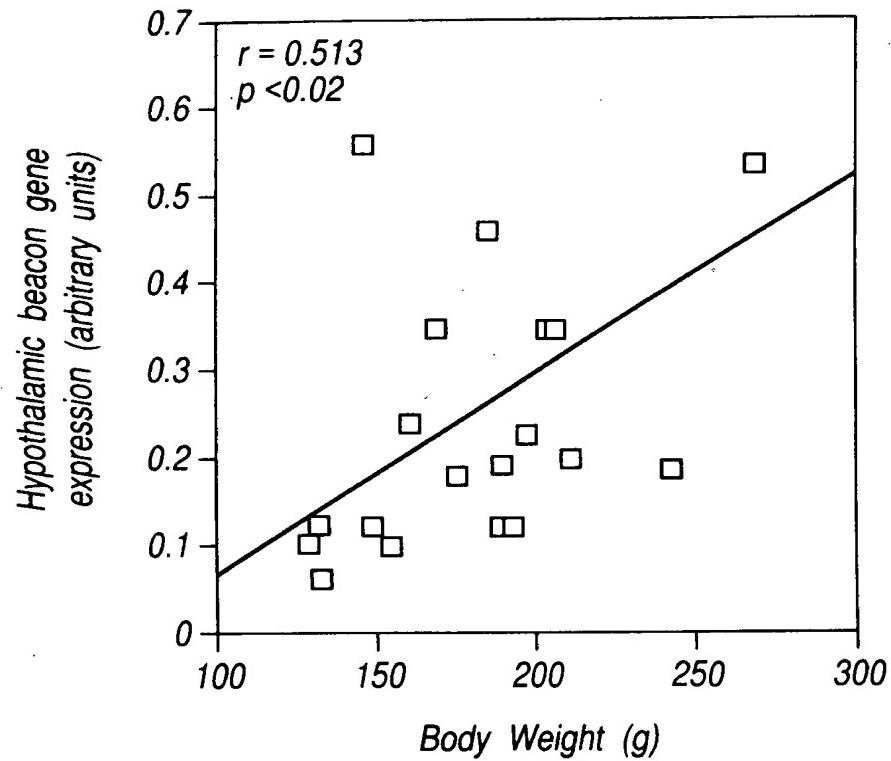


Fig.3A

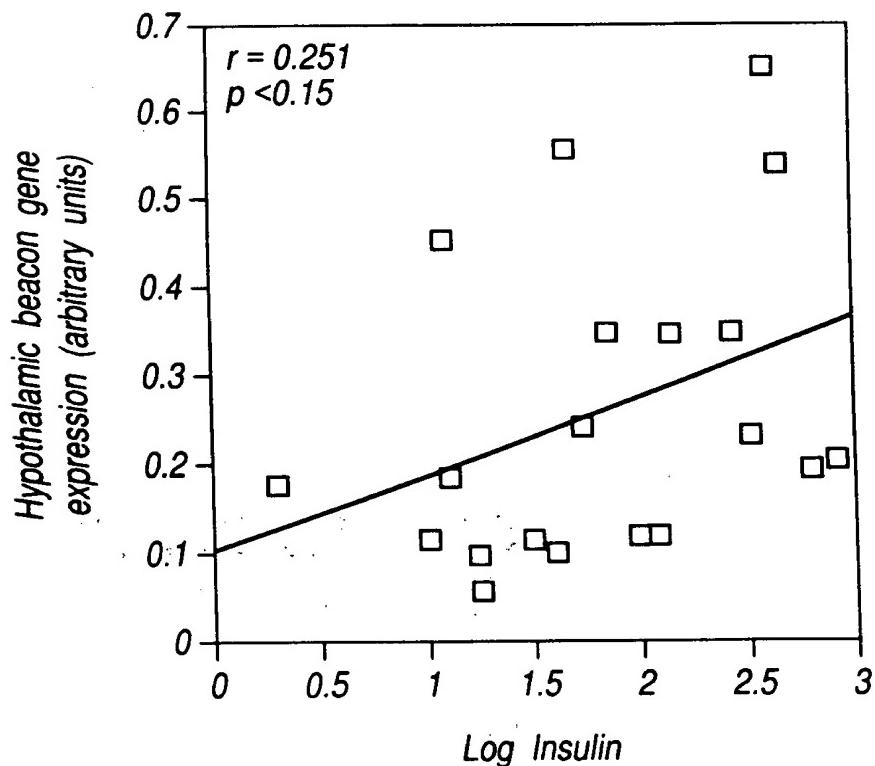


Fig.3B

APPROVED	O.G. FIG.	
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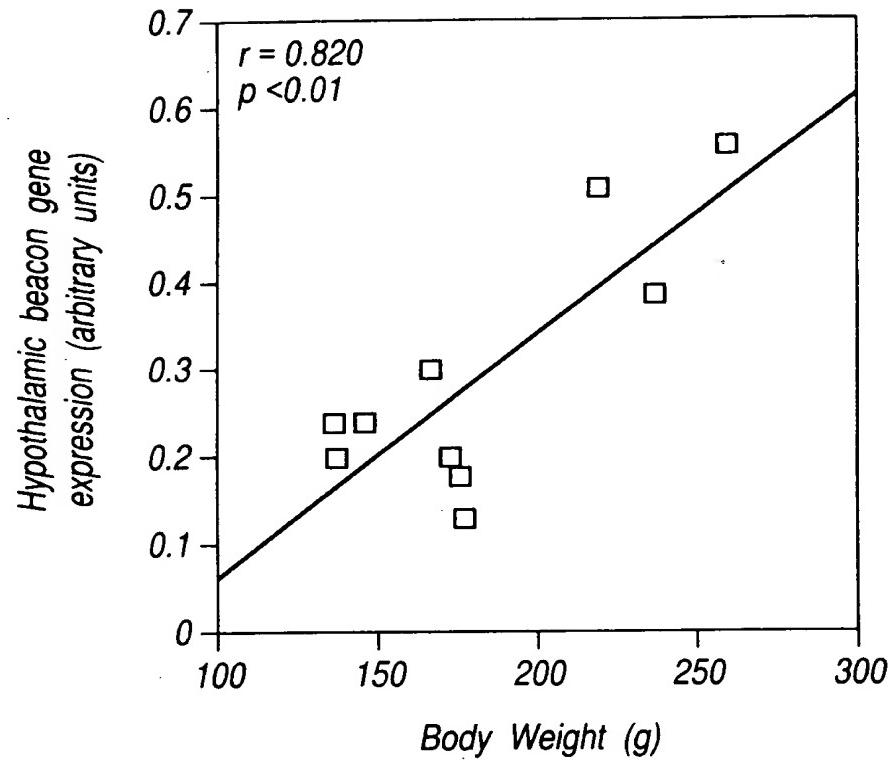


Fig.4A

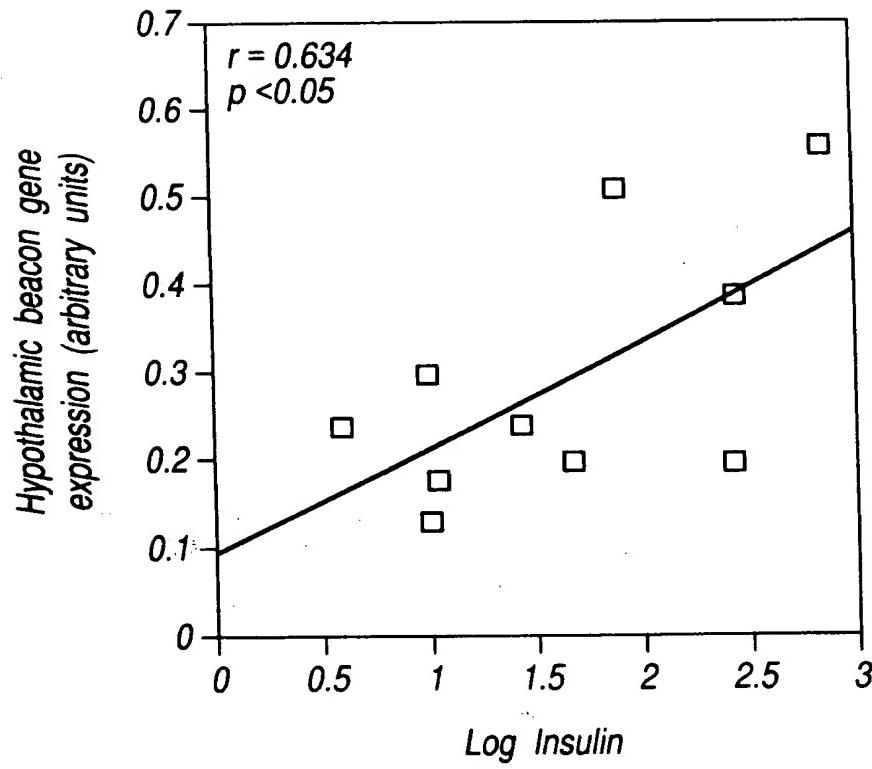


Fig.4B

APPROVED	O.G. FIG.
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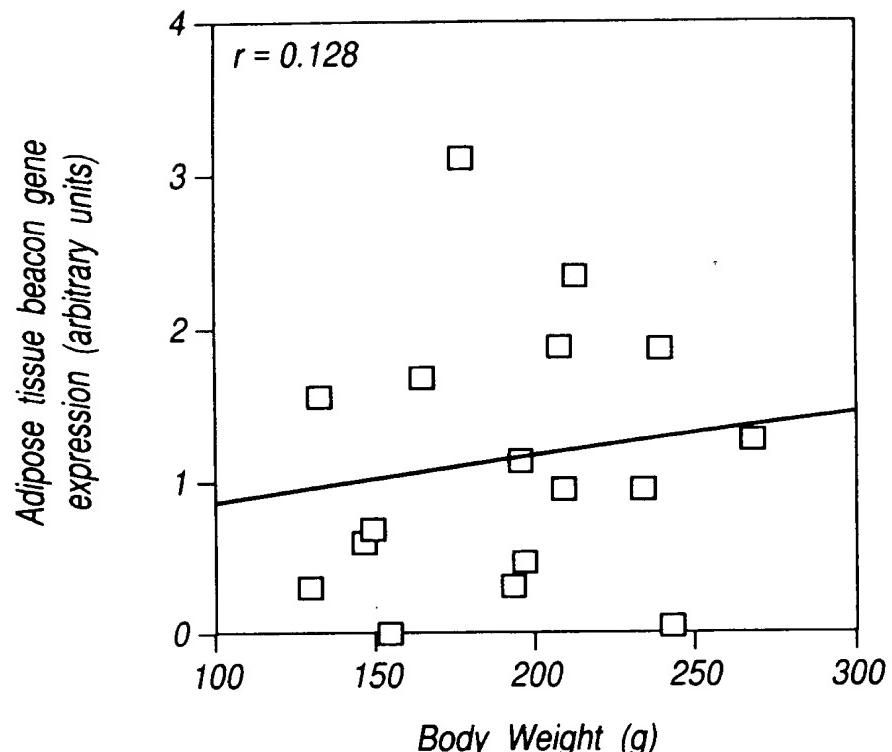


Fig.5A

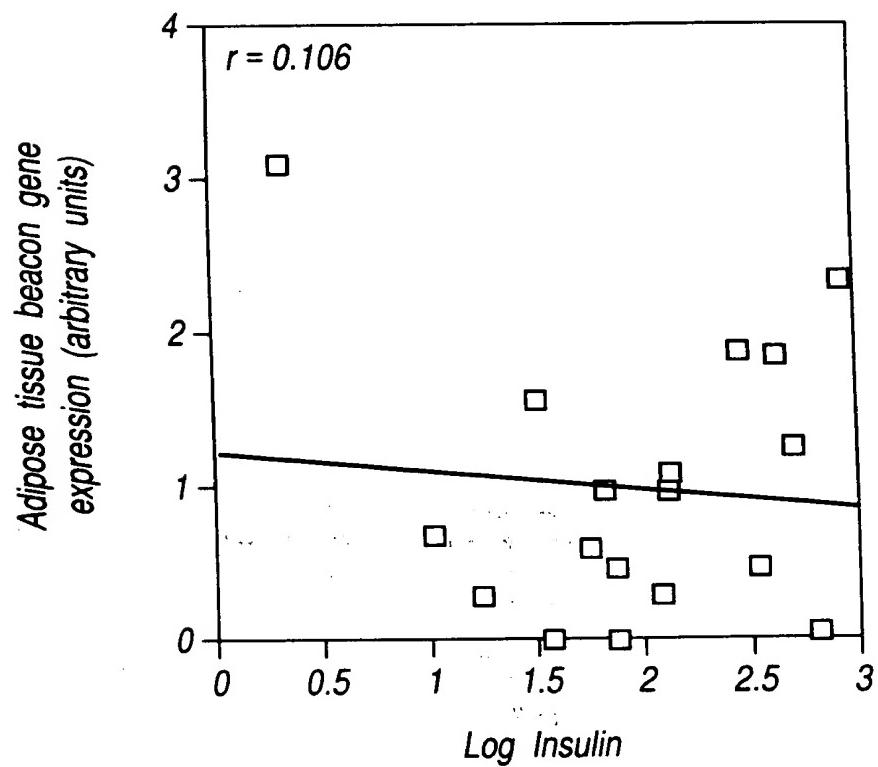


Fig.5B

APPROVED	O.G. FIG.
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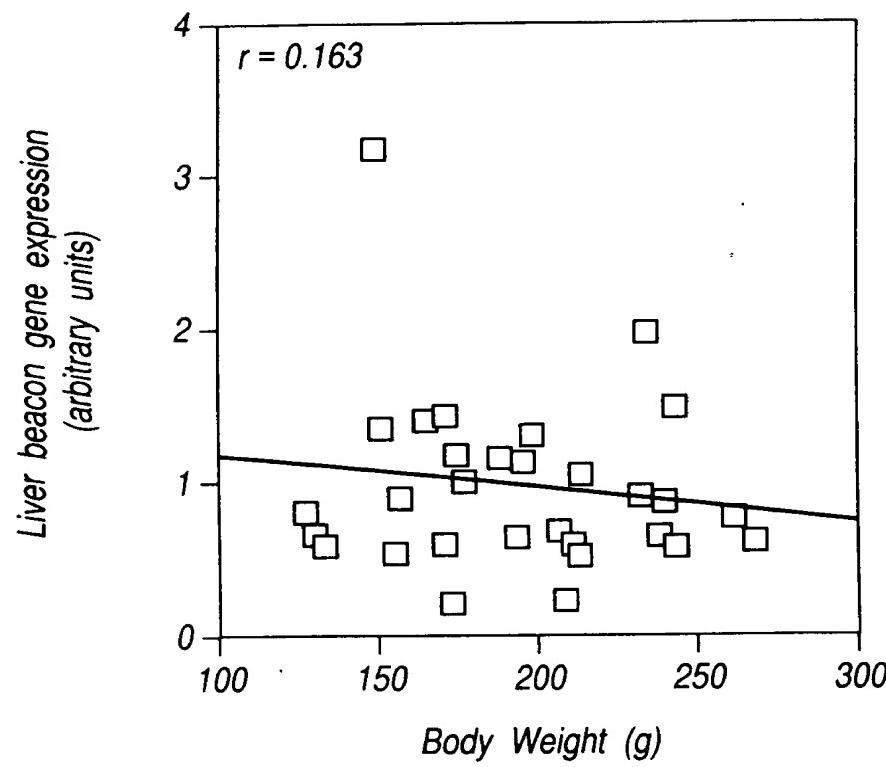


Fig.5C

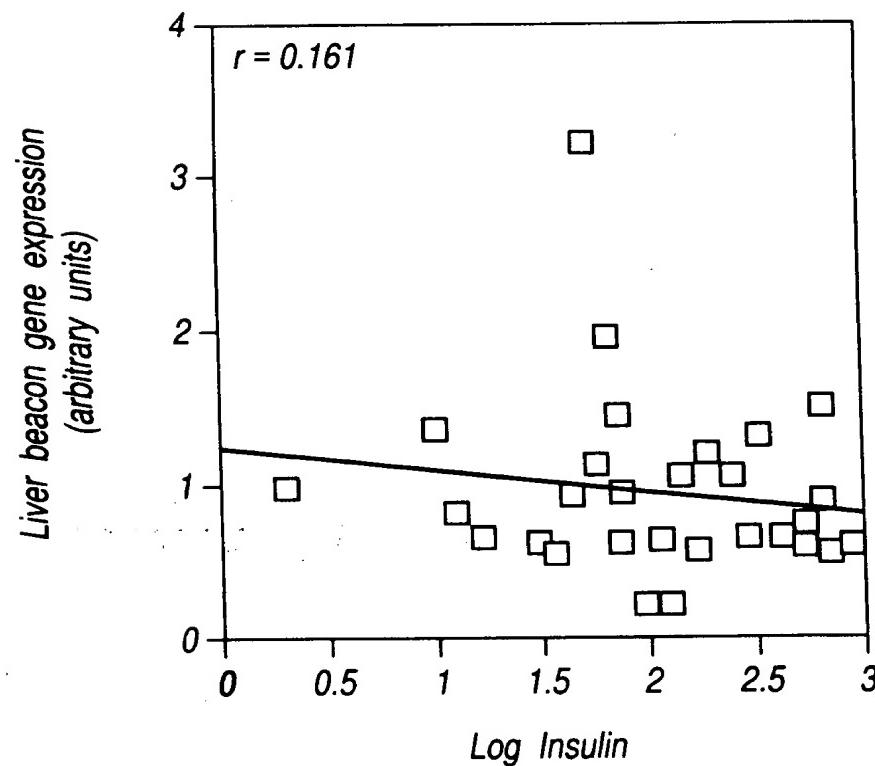


Fig.5D

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FIGURE 6 - DIFFERENCES

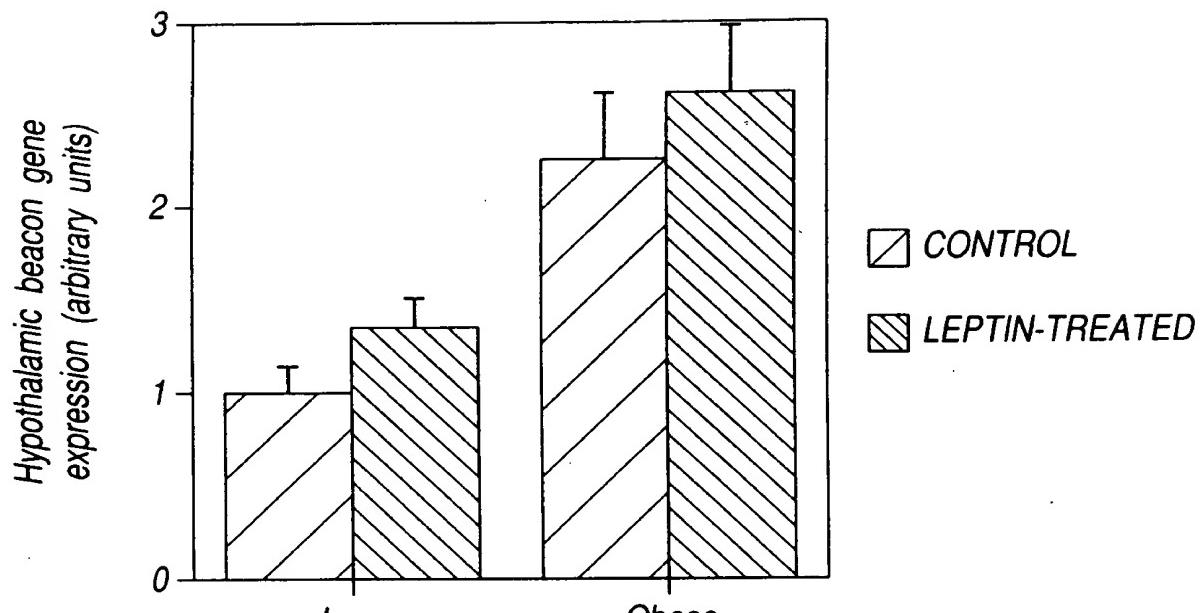


Fig. 6

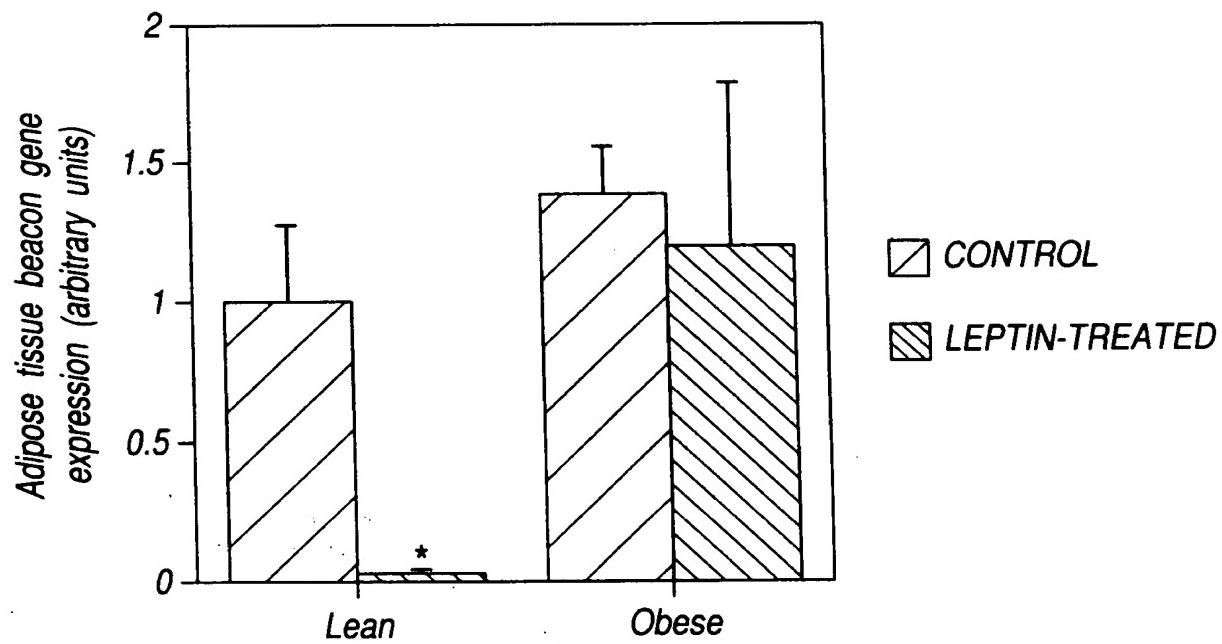


Fig. 7

APPROVED	O.G. FIG.	
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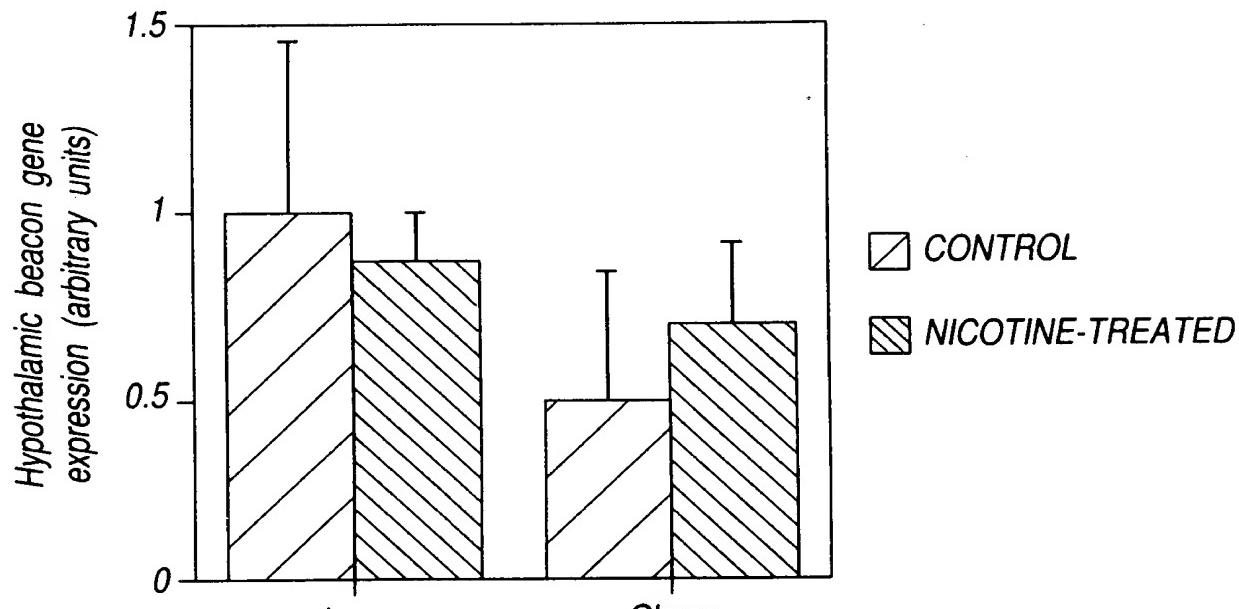


Fig.8A

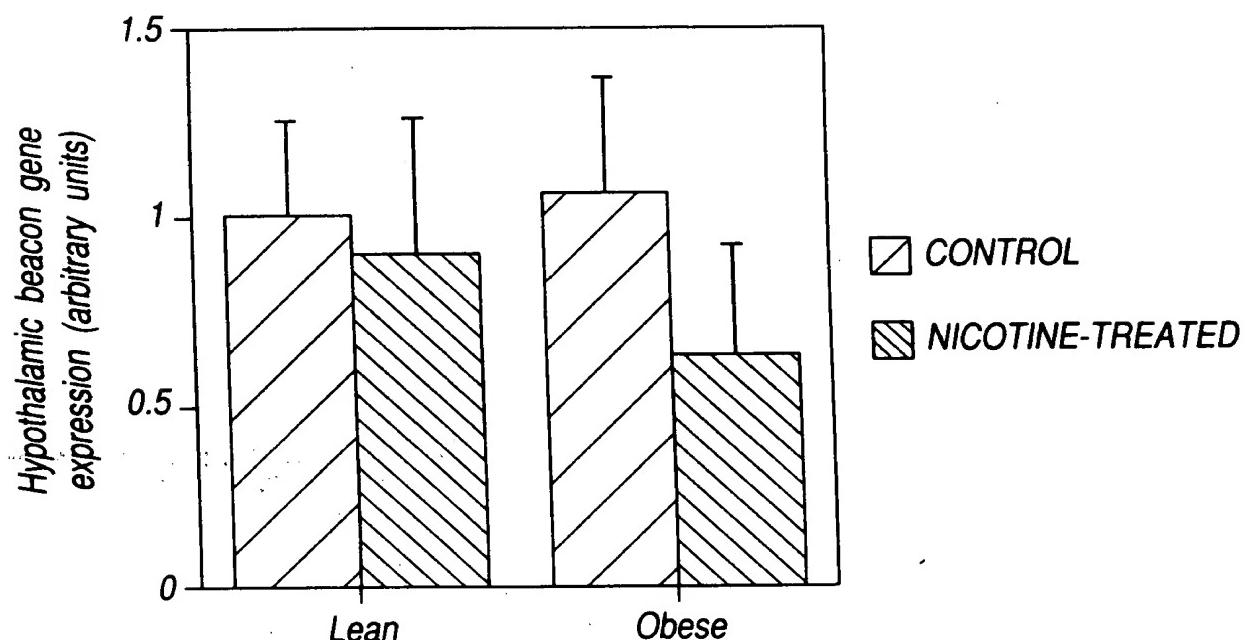


Fig.8B

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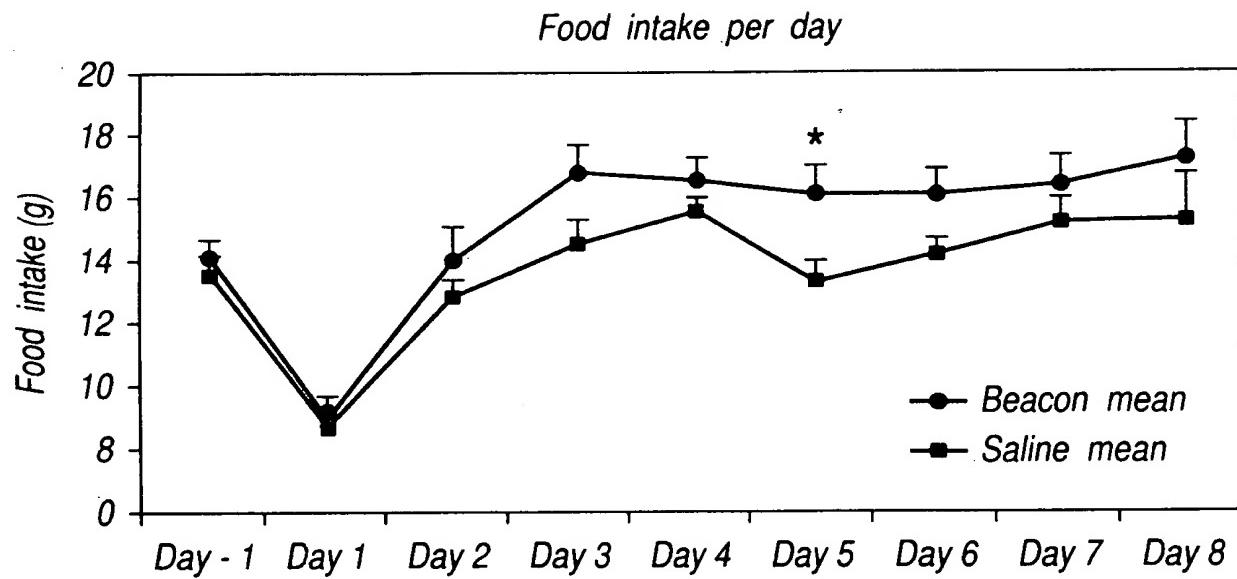
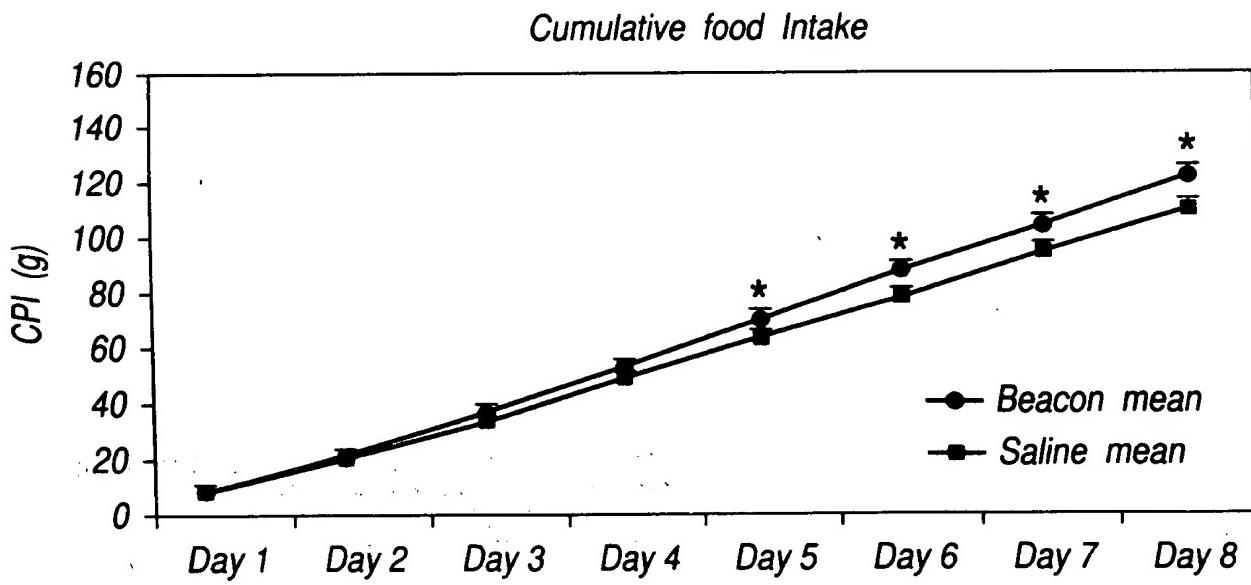


Fig.9A



* = significant, $p < 0.05$

Fig.9B

APPROVED	O.G. FIG.	
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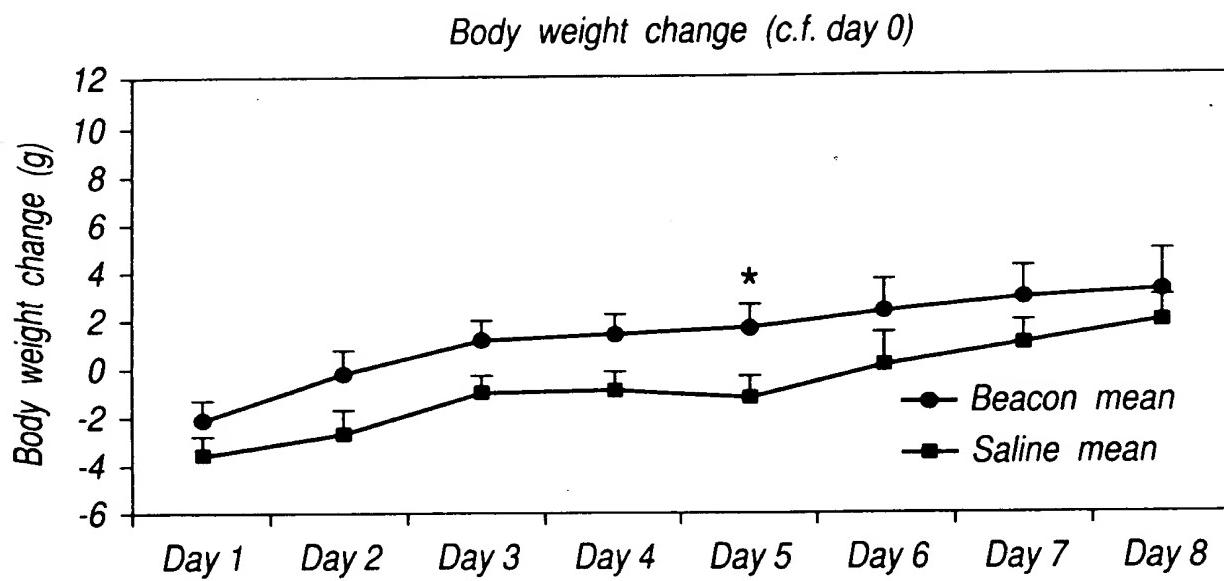


Fig.9C

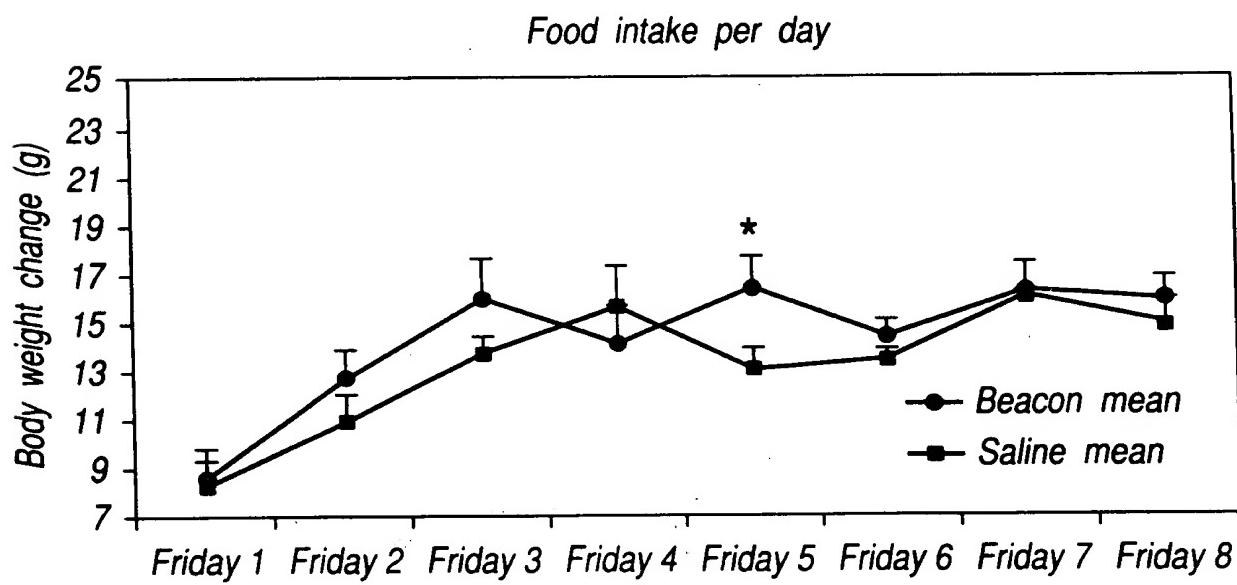


Fig.10A

* = significant, $p < 0.05$

APPROVED	O.G. FIG.	
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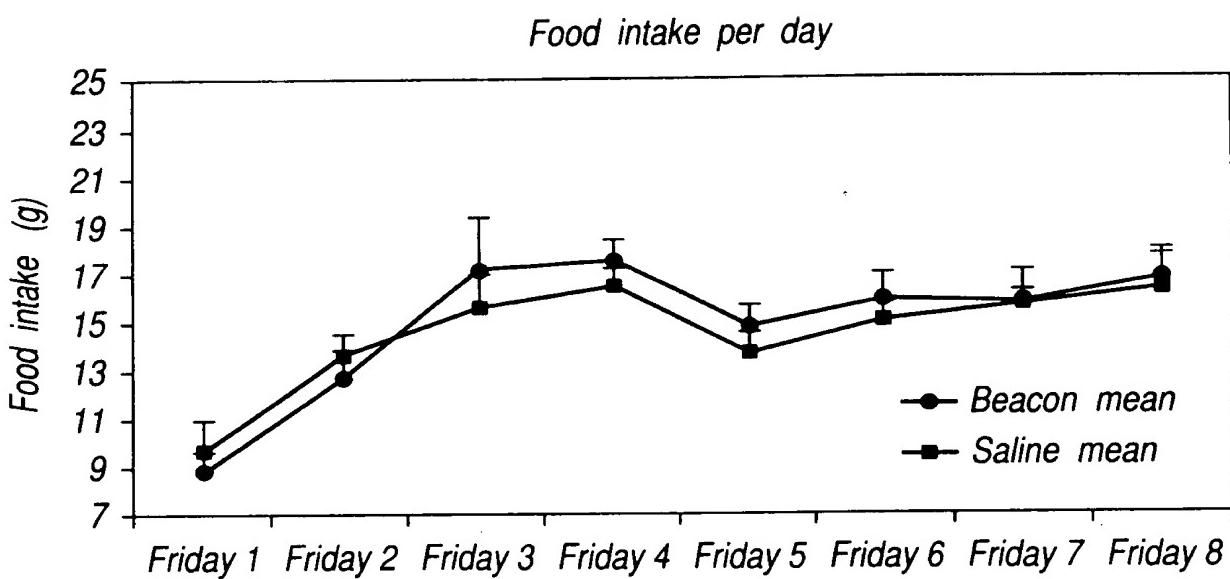


Fig. 10B

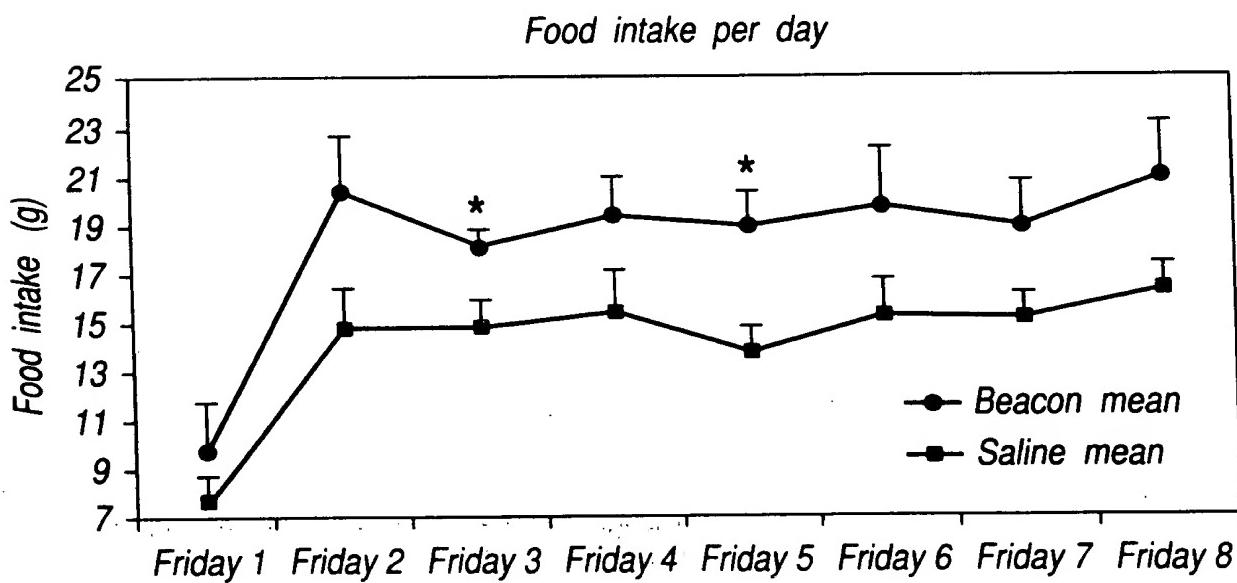


Fig. 10C

* = significant, $p < 0.05$

APPROVED	O.G. FIG.
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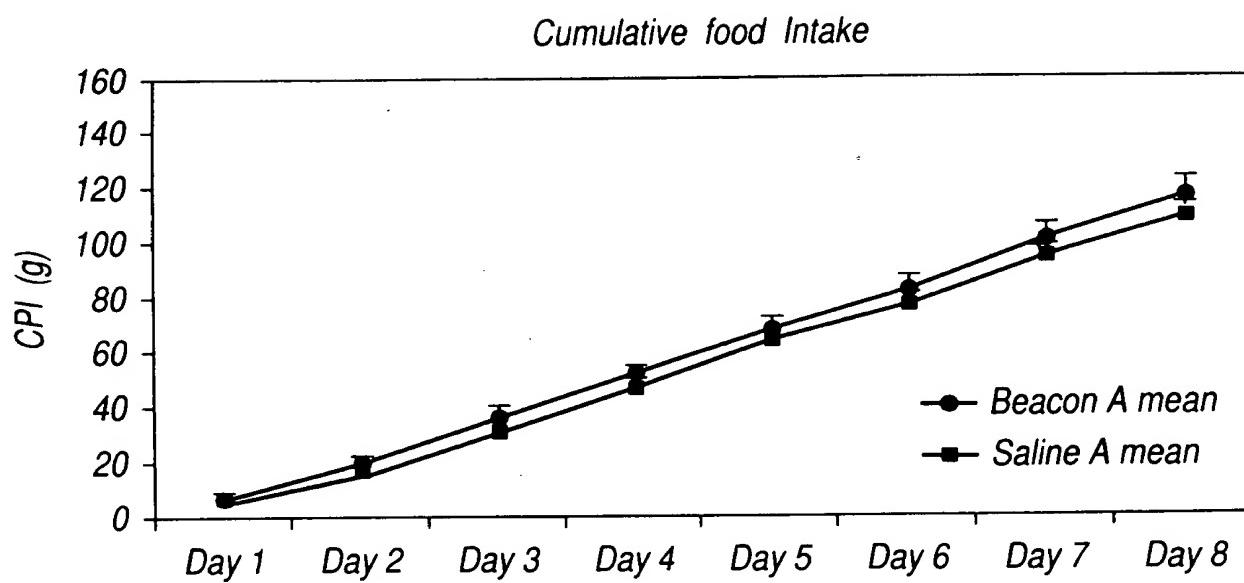
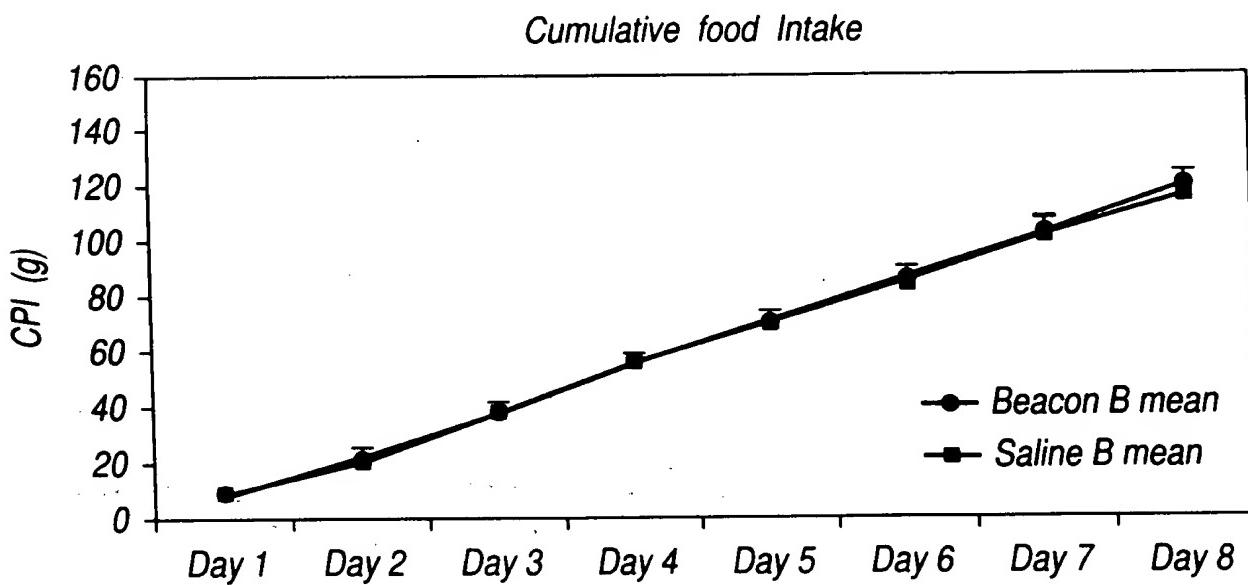


Fig.11A



* = significant, $p < 0.05$

Fig.11B

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	O.G. FIG.
CLASS	SUBCLASS
435	69.1

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B60E90 "DEGTEEEED"

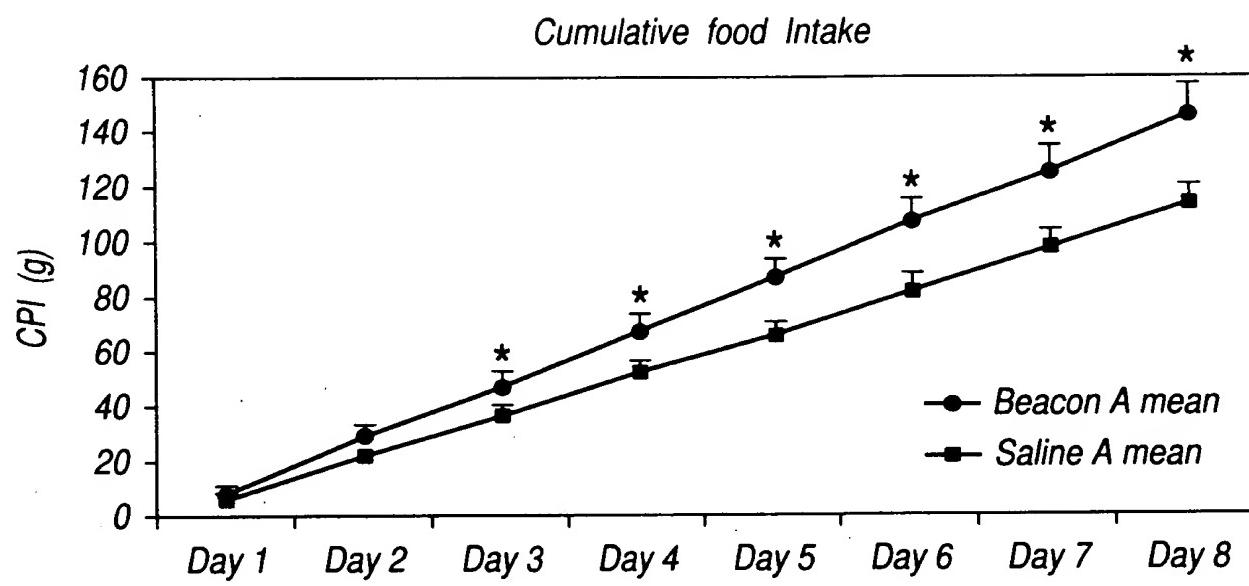


Fig.11C

APPROVED	O.G. FIG.
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Beacon v. Body Weight and % Fat in Group A animals

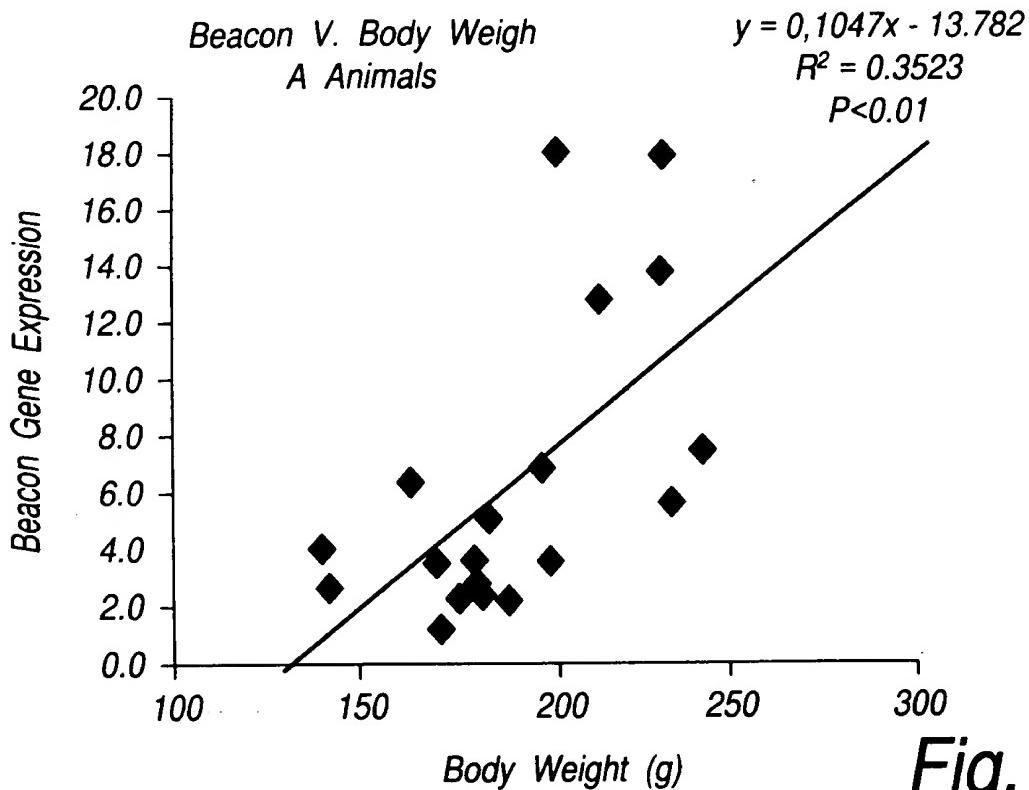


Fig. 12A

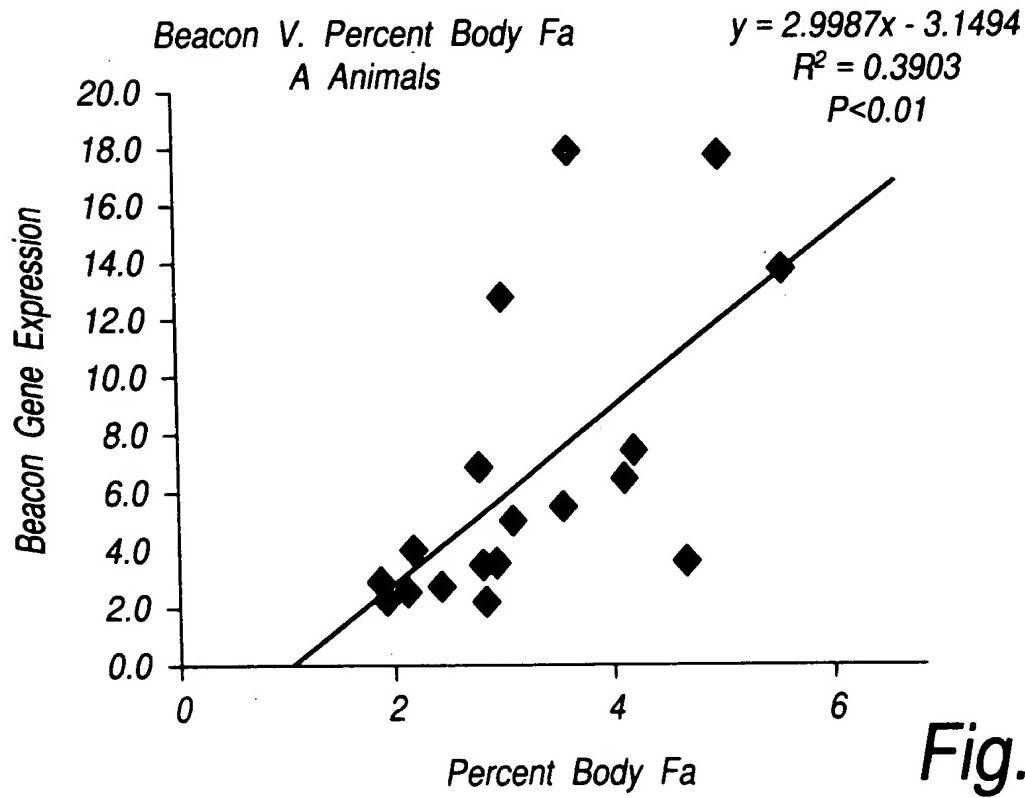


Fig. 12B

APPROVED	O.G. FIG.
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Beacon v. % Body Fat

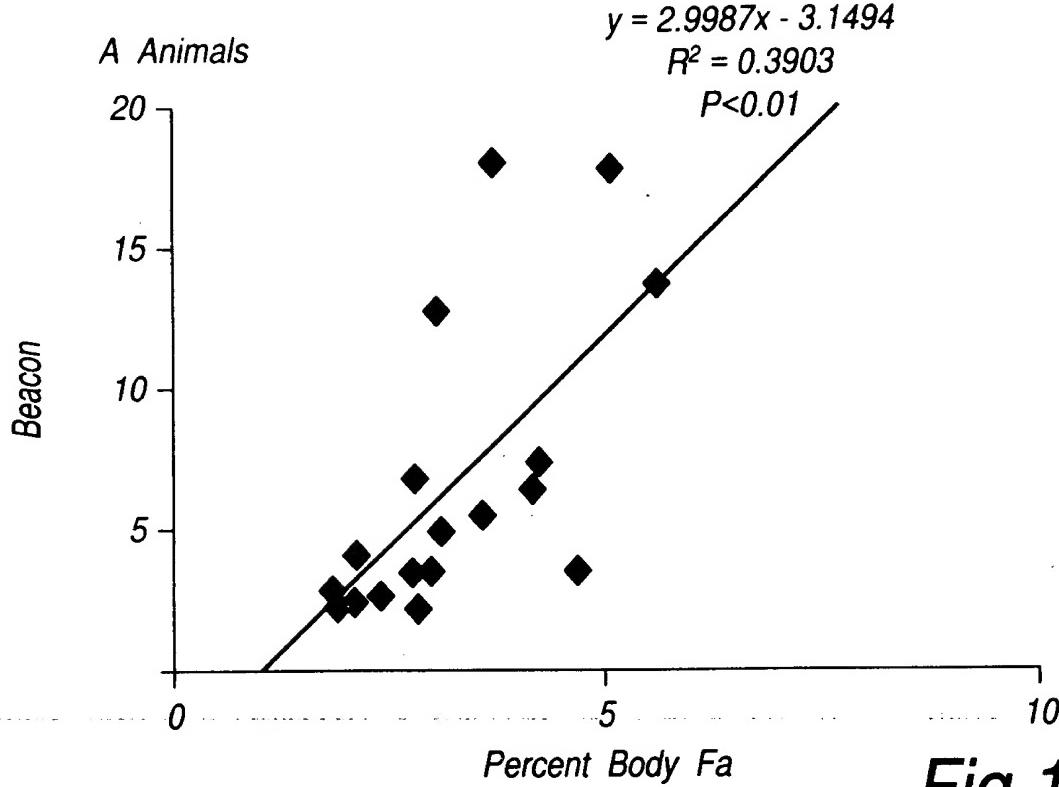


Fig. 13A

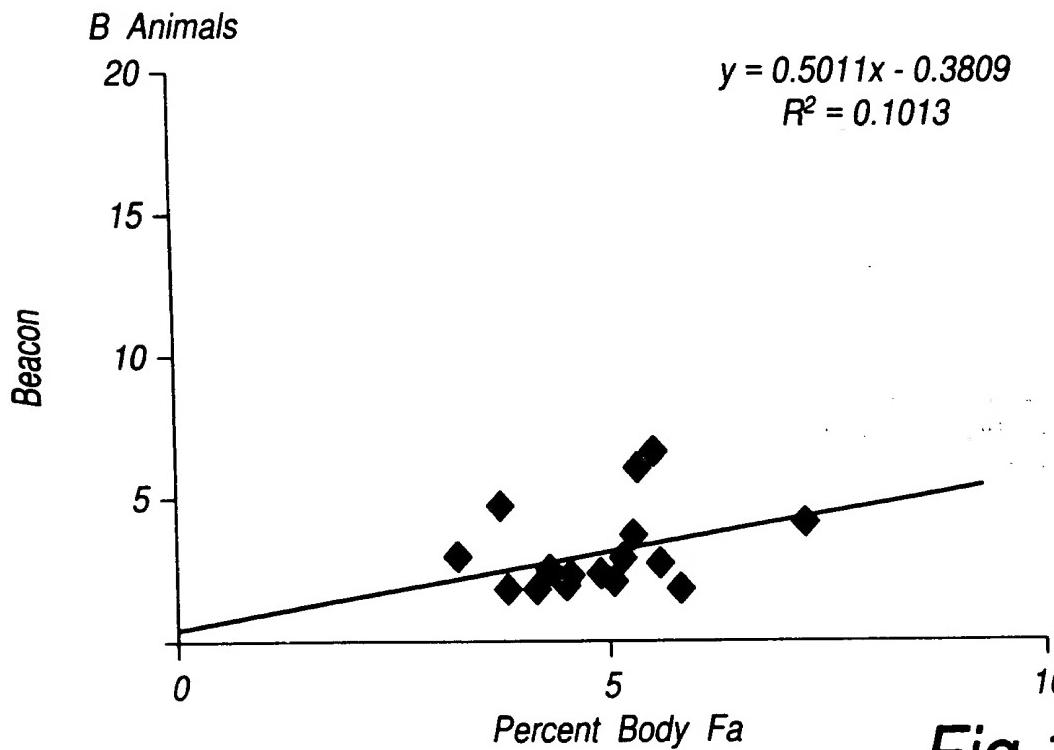


Fig. 13B